

Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Residential Construction Technology	104	CON 104 08/21/2017-Construction Framing I
Division	Department	Faculty Preparer
Math, Science and Engineering Tech	Construction Institute	Cristy Lindemann
Date of Last Filed Assessment Report		

I. Assessment Results per Student Learning Outcome

Outcome 1: Recognize and apply proper safety and building techniques to construct a platform.

- Assessment Plan
 - Assessment Tool: Construction project
 - Assessment Date: Fall 2015
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Departmental rubric will be used to score the data.
 - Standard of success to be used for this assessment: A minimum of 80% of the students must earn 80% or higher on the construction project.
 - Who will score and analyze the data: Department chair and instructors will score the data

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2016		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
7	7

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

All students were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Only one section was offered during this semester and it was an evening section. Classes that were offered during other semesters have similar outcomes.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Each lab project was scored for each student using a rubric with a 4-point scale.

In order to receive full points, a student must follow this criteria. Lab sheets are gathered for each class and each semester and filed by the department chair. We use the lab rubric to determine the success of this outcome.

Students are required to:

Wear safety glasses and practice tool safety, safety in the workplace, site maintenance, and team safety. Proper clothing/attire is also required; no open toed shoes, loose garments, tank tops, or slip-on type shoes are allowed. Shoes/boots worn must be laced and tied.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

Students met the standard of success of 100% scoring 80% or higher. The faculty have covered safety items from the first time the students enter the construction lab. The faculty feel this standard is needed for the students to carry into their career, but not needed as part of class assessment.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

For a career in construction, it is important to have students who are completing their work with set and established safety requirements, as well as recognizing those for an exam.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

This is a standard which could be considered a code of conduct, and not quite as important for the academics of this course.

Outcome 1: Recognize and apply proper safety and building techniques to construct a platform.

- Assessment Plan
 - Assessment Tool: Exam
 - Assessment Date: Fall 2015
 - Course section(s)/other population: ALL
 - Number students to be assessed: ALL
 - How the assessment will be scored: answer key
 - Standard of success to be used for this assessment: 80% of students will score 80% or higher
 - Who will score and analyze the data: Department Faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2016		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
7	7

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

All students were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Only one section was offered this semester and it was an evening class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

This outcome was assessed using an exam including multiple choice questions that were worth one point each.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

100% of the students scored 100%.

Students are given theory in a class setting and put it to use in the lab.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

For a career in construction, it is important to have students who are completing their work with set and established safety requirements, as well as recognizing those for an exam.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

This is a standard which could be considered a code of conduct, and not quite as important for the academics of this course.

Outcome 2: Identify foundation system components and construction required for light frame construction.

- Assessment Plan
 - Assessment Tool: Exam
 - Assessment Date: Fall 2015
 - Course section(s)/other population: ALL

- Number students to be assessed: ALL
- How the assessment will be scored: answer key
- Standard of success to be used for this assessment: 80% of students will score 80% or higher
- Who will score and analyze the data: Department Faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2016		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
7	7

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

All students were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Only one section was offered this semester, and it was an evening class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Students were given a drawing of a foundation and asked to label each part of the foundation. Ten items were required to be labeled and each item was worth one point.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes
 4 students scored 100%. 2 students scored 90%. 1 student scored 80%.

Students are given terminology in their book and also in handouts. After students learn the terms in the classroom setting, they are to complete a similar project in the lab setting. Students are also given videos and other samples of foundations throughout class. All student learning methods are used, and the students then put what they have learned to practice. In the past, we have seen similar standards of success met when the students are given examples in a classroom setting and then asked to build in the lab setting. We will continue to make adjustments to all our hands-on classes to ensure multiple learning styles are used to ensure student success.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Two of the four outcomes of this class are covered thoroughly in a class setting and then the students are given a project in the lab setting. From our results, we can see that the foundation system, which we cover more and have more information for the students, is something we do well. The students seem to be comfortable and have a clear understanding of terminology and building techniques required.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Overall in the course, we would need to use the information we learned from this outcome. The more ways we can distribute the information - theory, lecture, video, hands on, and homework - the more successful our students are.

Outcome 2: Identify foundation system components and construction required for light frame construction.

- Assessment Plan
 - Assessment Tool: Construction project
 - Assessment Date: Fall 2015
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Departmental rubric will be used to score the data.
 - Standard of success to be used for this assessment: A minimum of 80% of the students must earn 80% or higher on the construction project.

- Who will score and analyze the data: Department chair and instructors will score the data

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2016		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
7	7

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

All students were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Only one section was offered this semester and it was an evening class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Construction project rubric on a 4-point scale. Students are graded on comprehension, quality of work and completion of work.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes
 6 of the students completed their project with a score of 90% or higher.
 1 of the students completed their project with a score of 80% or higher.
 All students met the standard of success.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Two of the four outcomes of this class are covered thoroughly in a class setting and then the students are given a project in the lab setting. From our results, we can see that the foundation system, which we cover more and have more information for the students, is something we do well, The students seem to be comfortable and have a clear understanding of terminology and building techniques required.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Overall in the course, we would need to use the information we learned from this outcome. The more ways we can distribute the information - theory, lecture, video, hands on, and homework - the more successful our students are.

Outcome 3: Demolish a light frame construction system efficiently and safely.

- Assessment Plan
 - Assessment Tool: Construction project
 - Assessment Date: Fall 2015
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Departmental rubric will be used to score the data.
 - Standard of success to be used for this assessment: A minimum of 80% of the students must earn 80% or higher on the construction project.
 - Who will score and analyze the data: Department chair and instructors will score the data

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2016		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
7	7

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

All students were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Only one section was offered this semester and it was an evening class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Construction departmental rubric on a four point-scale.

Students are graded on safety, comprehension, quality of work and completion of work.

The project is worth a total of 16 points.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

All students completed task with a score of 100%.

Students have an understanding of what to keep and what can be destroyed from a previous class. We see students still using similar techniques from prior learning.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Similar to the safety outcome, we need to verify what it is that students really need to get out of this class. It is important to see that students are carrying information from the previous class to this one, but we should consider the three stages of construction we are covering in this class and establish more detailed outcomes and objectives.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Plans for improvement include changing outcomes to match industry needs and objectives required as the three stages of this course.

Outcome 4: Perform calculations needed to construct a rough stair stringer per industry standards.

- Assessment Plan
 - Assessment Tool: Construction project
 - Assessment Date: Fall 2015
 - Course section(s)/other population: All
 - Number students to be assessed: All
 - How the assessment will be scored: Departmental rubric will be used to score the data.
 - Standard of success to be used for this assessment: A minimum of 80% of the students must earn 80% or higher on the construction project.
 - Who will score and analyze the data: Department chair and instructors will score the data

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2016		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
7	7

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

All students were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Only one section was offered this semester and it was an evening class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Departmentally-developed rubric with a 4-point scale.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: No

Students were scored on a 4-point scale.

Students were required to comprehend and complete the project within industry standards.

5 students scored 80% or higher.

2 students scored 70% to 79%.

5 out of 7 students met the standard of success.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

For stair calculations students need to compete three different stages of the calculations. For our outcomes, the students understand the stages, but have problems with the conversions.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

We need to cover conversions in more classes and make sure we are giving students several styles of learning, including theory, hands-on activities, videos and homework.

Outcome 4: Perform calculations needed to construct a rough stair stringer per industry standards.

- Assessment Plan
 - Assessment Tool: Exam
 - Assessment Date: Fall 2015

- Course section(s)/other population: ALL
- Number students to be assessed: ALL
- How the assessment will be scored: answer key
- Standard of success to be used for this assessment: 80% of students will score 80% or higher
- Who will score and analyze the data: Department Faculty

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2016		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
7	7

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

All students were assessed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Only one section was offered this semester, and it was an evening class.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

Students are given a stair configuration to calculate for a light frame construction building. The problem is worth 10 points. The students are given 2 points for five stages of the calculation. 4 points of the calculation are memorization. Another 4 points of calculation are conversions of the proper feet and inches. The final two points are for the correct answer within 1/8th of an inch. If the students uses the proper method for calculation, and completes their conversions correctly, they can compute the stair configuration within 1/8th of an inch.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this

learning outcome and indicate whether the standard of success was met for this outcome and tool.

<p>Met Standard of Success: <u>Yes</u></p> <p>4 students scored 9 or higher. 2 students scored 8 points. 1 student scored 7 points.</p> <p>6 out of 7 scored 80% or higher.</p> <p>Students that did not meet the standard of success did not complete the conversion process properly, which in turn made their final answer off by more than 1/8th of an inch.</p> <p>Students are given several problems to work through as well as the book assignments. Once theory and calculations are learned in a class setting students are required to put what they learned to practice in the lab setting. Once students see where the error from the first two steps can affect the final answer, they typically make the adjustments. A clear understanding of the theory behind why stairs are set up to match code is needed to complete this calculation correctly each time.</p>

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

<p>For stair calculations students need to compete three different stages of the calculations. For our outcomes, the students understand the stages, but have problems with the conversions.</p>
--

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

<p>We need to cover conversions in more classes and make sure we are giving students several styles of learning, including theory, hands-on activities, videos and homework.</p>
--

II. Course Summary and Action Plans Based on Assessment Results

1. Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

<p>Because we work closely with industry, and the theory and the lab instructors work together daily, we need to consider changing the outcomes to meet industry standards.</p>

Also in order for more students to be successful, we need to consider how we teach them, by giving them other ways to learn the same thing.

2. Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

Department meetings as well as first day handout reviews.

3. Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Outcome Language	Change outcomes to match industry standards.	Initial outcomes set to match what three stages were covered at the minimum. Need to expand requirements of faculty.	2018
1st Day Handout	All staff to follow similar FDH established by all full-time and part-time faculty.	All students will be taught at same level and with same information.	2018

4. Is there anything that you would like to mention that was not already captured?

5.

III. Attached Files

[Grade book](#)
[lab rubric](#)

Faculty/Preparer: Cristy Lindemann **Date:** 08/21/2017
Department Chair: Cristy Lindemann **Date:** 08/21/2017
Dean: Kristin Good **Date:** 08/24/2017
Assessment Committee Chair: Michelle Garey **Date:** 12/10/2017